Hello Everyone,

We've finished the May 1, 2014 Water Supply Index (WSI) and Bulletin 120 (B120) forecasts. The forecasts include observed conditions through the end of April. The forecasts are posted at:

WSI: http://cdec.water.ca.gov/cgi-progs/iodir/wsi
B120: http://cdec.water.ca.gov/cgi-progs/iodir?s=b120

Forecast Summary:

The projected median April-July runoff in the major Sierra river basins ranges from 11 percent on the Tule River to 54 percent on the McCloud River. Forecasted median Water Year (WY) runoff ranges from 10 percent for the Tule River to 46 percent for the total inflow to Shasta Lake. The WY forecast for the Inflow to Shasta Lake is helped significantly by the Pit River and McCloud WY-to-date flows which are over 55 percent of average while most other rivers on the west side are flowing at or below 44 percent of average. The WSI forecast can be summarized as follows:

Sacramento River Unimpaired Runoff Water Year Forecast	**7.2 MAF**
(50 percent exceedance)	(39 percent of normal)
Sacramento Valley Index (SVI)	**4.0**
(50 percent exceedance)	(Critical)
San Joaquin Valley Index (SJI)	**1.1**
(75 percent exceedance)	(Critical)

Runoff:

April flows in the Sacramento, San Joaquin and Tulare Lake regions were 52, 55, and 45 percent of average, respectively. For the Water Year through April, flows in the Sacramento, San Joaquin and Tulare Lake regions were 41, 33, and 30 percent of average, respectively.

Statewide, April flows were 52 percent of average bringing the Water Year to date to 37 percent of average.

Precipitation:

After February and March provided above average precipitation for northern California, April provided less than average precipitation for the month. The Northern Sierra 8-Station Precipitation Index (8SI) registered 2.4 inches (62 percent of average) for April (average is 3.9 inches). Through the end of April, the seasonal total to date is up to 28.1 inches, or 56 percent of an average water year. This Water Year total still leaves a large deficit as the 8-Station Index stands at 62 percent of the seasonal average to date.

The San Joaquin 5-Station Precipitation Index fared better as the April accumulation was 3.2 inches (91 percent of average which is 3.5 inches). Through the end of April, the seasonal total to date is up to 18.2 inches, or 45 percent of an average water year. This Water Year total still

leaves a very large deficit as the 5-Station Index is just under half (49 percent) of the seasonal average to date.

For the Tulare Lake region, precipitation was about 98 percent of average for April. The total precipitation for the region is 48 percent of average-to-date.

Regionally, the Sacramento River, San Joaquin River, and Tulare Lake regions precipitation rates through April are 54, 46, and 45 percent of their regional water year averages. Statewide precipitation stands at 53 percent of average-to-date.

Snowpack:

Snowpack is monitored using two complementary methods: automatic snow sensor (or "pillow") readings and manual snow course measurements. The snow sensors give us a daily snapshot of snow conditions while the manual snow course measurements provide a monthly verification of snow conditions in locations where snow has been measured in the same manner as far back as 100 years.

Both methods clearly show that the snowmelt is on as the small snowpack is shrinking quickly. On May 1, snow sensors recorded a snowpack that was 7 percent of average in the northern Sierra, 24 percent of average in the central Sierra, and 18 percent of average in the southern Sierra. Statewide, snow water equivalent based on snow pillow data was 14 percent of the historical statewide April 1 average – down from 33 percent on April 1.

Results from the 171 snow courses measured this month revealed similar conditions to those of the snow sensors. Measurements in the Sacramento River Valley watersheds recorded a snowpack that is 9 percent of the historical May 1 average. Measurements in the San Joaquin Valley watersheds indicated a snowpack that is 21 percent of the May 1 average while the snowpack for the Tulare Lake region was 13 percent of the May 1 average.

Of the courses measured this month, 73 were completely bare of snow . The North Coast has the highest percent of bare course, 80 percent. Statewide the snowpack was measured at 10 percent of the historical April 1 average and 13 percent of the May 1 average. This statewide level is down from 25 percent on April 1.

Weather and Climate Outlook:

The forecast for the next six days shows little to no precipitation statewide. However, precipitation is expected for the North Coast today, where about 0.5 inch is expected today and less than a quarter of an inch is expected for Friday and Saturday. Freezing elevations, currently about 9,000 feet, are expected to rise to near 13,000 feet by Tuesday.

The NWS Climate Prediction Center's (CPC) one-month outlook for May, updated April 30, suggests increased chances of above normal temperatures for all of the State. The same outlook predicts equal chances of normal precipitation.

The CPC's three-month outlook (May-July), updated April 17, suggests increased chances of above normal temperatures for all of California. The same outlook predicts increased chances of below normal precipitation over the northern quarter of the state and equal changes of normal precipitation elsewhere.

El Niño/Southern Oscillation (ENSO) conditions are currently neutral. ENSO-neutral conditions are expected to persist through the Northern Hemisphere Spring 2014 with about a 50% chance of El Niño developing by the summer.

Next Update:

The WSI forecasts are the last of the 2013-14 Water Year. Weekly Bulletin 120 updates will continue in May. The next weekly B120 update for conditions as of May 13, 2014 will be available on May 15, 2014.

If you have any questions regarding this forecast, please contact a member of the Snow Surveys staff. We are happy to help.